Claims Status as of May 25, 2005

1. (currently amended) An arch shape cross section leaching chamber having an inwardly sloped sidewall with a multiplicity of inwardly flaring perforations; ~~wherein the perforations flare inwardly; and~~ wherein the basic axes of the perforations slope downwardly as the axes run from the inside to the outside of the chamber sidewall; and, wherein the exterior sidewall opening height of the perforations is sufficiently large to enable entry of soil which abuts the sidewall during use.

2. (currently amended) The chamber of claim 1 wherein the top of the chamber is un-perforated.

3. (currently amended) The chamber of claim 1, wherein the sloped sidewall of the chamber curves ~~is~~ upwardly~~curved~~.

4. (cancelled) ~~(original) The chamber of claim 1, wherein the included angle of flare is greater than 2 degrees.~~

5. (currently amended) The chamber of claim 4, wherein said included angle of flare is between 2 and about 12 degrees.

6. (original) The chamber of claim 1, wherein the perforations are slots running lengthwise along the chamber.

7. (currently amended) A one-piece molded ~~n~~ arch shape cross section leaching chamber having a sidewall with a multiplicity of perforations, ~~wherein the perforations flare inwardly~~, wherein the basic axes of the perforations slope downwardly, from the inside to the outside of the chamber sidewall; ~~wherein~~ the chamber having~~has~~ a base flange with an upwardly extending lengthwise fin; and, wherein the extension of the basic axes of at least some of said ~~plurality~~ multiplicity of perforations intersects said fin.

8. (canceled)

9. (withdrawn) The method of injection molding a leaching chamber having an arch shape cross section, wherein said cross section has a top, an open bottom and sidewalls having a multiplicity of inward flaring perforations, which comprises:

(a) providing a mold core part and a mating mold cavity part, which when mated together and filled with molding material form of said chamber arch shape cross section; wherein the core part has projections which define the inward flare shape of the perforations in the sidewalls;

(b) injecting molding material into the space between the core and cavity, to thereby form the chamber arch shape cross section;

(c) moving said mold core projections inwardly relative to the arch shape cross section of the chamber, so the projections withdraw from the sidewall; and,

(d) moving the core part and cavity part away from each other, to thereby expose the chamber, so the article formed of molding material may be removed from the mold.

10. (withdrawn) The method of claim 9 wherein, in step (c), the mold core projections are moved both inwardly and downwardly relative to the chamber cross section and top.

11. (withdrawn) The method of claim 10 wherein said core projections form perforations which are slots running lengthwise along the chamber.

12. (withdrawn, currently amended) A mold for use in an injection molding machine, for making an arch shape cross section chamber having opposing sidewalls with a multiplicity of perforations, wherein the sidewalls run upwardly from the chamber base, which comprises:

a cavity part, for defining the exterior of the molded chamber;

a core part, for defining the interior of the molded chamber, comprising

two slides, for forming the interior of said sidewalls, the slides movable inwardly relative to the interior sidewalls of the chamber, after a chamber is formed by injection molding;

a center block, for forming the interior of the chamber top, mounted between the slides to form a continuous interior mold surface therewith, the center block movable downward relative to said molded chamber top, to thereby create space for movement of each slide, away from the chamber sidewall and toward the center block.

13. (withdrawn) The mold of claim 12 wherein said multiplicity of perforations have basic axes which run downwardly, from the interior to the exterior of the chamber, in the direction of the chamber base.

14. (withdrawn) The mold of claim 12 wherein the center block is wedge shaped.

15. (withdrawn) The mold of claim 14, wherein the core part is mountable on a first platen of an injection molding machine and the cavity part is mountable of a second platen of said machine, so that said parts may move along a z axis, to open and close the mold, wherein the core part further comprises:

a base plate, for attaching the core part to a platen of a molding machine;

a floating plate, movably mounted on the base plate for motion along the z axis, so that when the mold closes, the floating plate contacts the cavity part; wherein each slide is mounted on the floating plate for movement generally in the y axis direction;

at least one first shaft, attached to the base plate, and extending along the z axis through a clearance hole in the floating plate; wherein the center block is supported on said shaft;

at least two spaced apart second shafts, attached to the base plate, each extending generally in the z axis direction with an incline relative to said first shaft, through a clearance hole in the floating plate; each second shaft slidably engaged with one of said slides; wherein, when the floating plate moves away from the base plate and toward the cavity part, said inclined second shafts cause the slides to move inwardly in the y direction, toward the center block.

16. (withdrawn) The mold of claim 15 further comprising at least two spaced apart inclined third shafts, attached to said floating plate; wherein each slide is slidably engaged with one of said third shafts, so that each slide moves simultaneously in the z direction away from the base plate while moving inwardly in the y direction.

17. (withdrawn) The mold of claim 15 further comprising: means for moving the floating plate away from the base plate, while the floating plate is held in contact with the cavity part of the mold, to thereby move the slides inwardly.

18. (new) The chamber of claim 1, wherein the chamber further comprises a base flange which extends outwardly from the bottom of the sidewall, and an upwardly extending fin running the outermost part of the base flange; wherein the extension of the basic axes of at least some of said multiplicity of perforations intersects said fin.

19 (new) An arch shape cross section leaching chamber comprising an unperforated top; inwardly sloped and upwardly curving opposing sidewalls running down from the top to base of the chamber; each sidewall having a multiplicity of inwardly flaring horizontal slot perforations which are spaced apart horizontally and vertically along the sidewall; wherein the basic axes of all the perforations on each opposing sidewall slope downwardly at about the same angle, as the axes run from the inside to the outside of the chamber sidewall.

20. (new) the chamber of claim 19 wherein each slot has, at the exterior surface of the sidewall, an opening height sufficiently large to enable soil to lie along an angle within the slot during use of the chamber within soil.